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EXAMINER

LACLAIR, DARCY D

ART UNIT

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1763

NOTIFICATION DATE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Attachment to Advisory Action

1. Applicant's response filed **7/21/2010** has been fully considered but it is not persuasive.

Specifically, applicant argues **(A)** applicants request that the obviousness type double patenting rejection be held in abeyance until the case is ready for allowance.

(B) The advantages of the presently claimed method are the unexpected properties of low viscosity and good processability of the highly filled elastomeric compounds. (See p. 3, lines 16-19) It is known in the art that elastomeric compounds with high filler loadings have increased compound viscosity, leading to poor processability and scorch safety. (See p. 1, lines 8-19) This problem is solved by the instant invention by adding 1 to 400% by weight of microsilica to a highly loaded compound. Underwood does not teach this invention, but rather provides a resin composition loaded with particulate amorphous silica, and none of the described formulations in Table 3 provides a resin having high filler loading in addition to microsilica; The examples show resin alone, resin with silica, and resin with conventional filler, but no combination of microsilica and conventional filler. Emmett does not remedy this deficiency because it likewise does not teach microsilica plus conventional filler.

(C) Cernac does not disclose the presently claimed invention or teach or suggest the method of forming a highly filled elastomeric compound by adding microsilica to a highly filled compound, but rather provides for a composition of polyamide fibers, powdered graphite, mineral fillers, elastomeric binders, and a vulcanization system.

Art Unit: 1763

Underwood, as discussed above, does not cure Cernac's deficiency, because it does not teach the addition of microsilica to a highly filled compound.

2. **With respect to argument (A)**, Applicant is advised that the provisional obviousness-type double patenting rejection of record over **copending Application No. 11/718,590** is being maintained until properly overcome.

With respect to argument (B), applicant's arguments have been considered but are **not persuasive**. It is noted that applicant's references to the specification in the discussion refer to generic discussion as to the effects, and not to a showing of the improvement in viscosity or processability. Any showing of unexpected results to overcome a *prima facie* case of obviousness must be weighed against the evidence supporting a *prima facie* case of obviousness, (see MPEP 716.01(d) [R-6]) and must be commensurate in scope with the claims. Thus the current claims which require a highly filled elastomeric compound, a filler from 15% to 500% by weight, and microsilica in 1 to 400% by weight would require a showing of a variety of elastomeric compounds, a variety of fillers in contents throughout the 15% to 500% range, and content of microsilica for these cases varying between 1 and 400% by weight.

Contrary to applicant's position that Underwood does not teach the invention, Underwood teaches that a large amount of filler can **also** be used when this microsilica is employed (see col 3 line 12-15), that carbon black can be used to obtain a dark colored PVC (see col 5, line 8-11) and that the silica is used in admixture with one or more other fillers to achieve a balance of characteristics in the composition. (See col 13

Art Unit: 1763

line 39-42) While Underwood does not exemplify a composition having microsilica and another filler, this does not negate a finding of obviousness under 35 USC 103 since a preferred embodiment such as an example is not controlling. Rather, all disclosures "including unpreferred embodiments" must be considered. *In re Lamberti* 192 USPQ 278, 280 (CCPA 1976) citing *In re Mills* 176 USPQ 196 (CCPA 1972). Therefore, it would have been obvious to one of ordinary skill in the art to utilize a combination of fillers given that Underwood teaches such a combination. Further, Underwood teaches that amorphous silica can improve the rheological properties, (col 3 line 7-11) and enhance the processing characteristics. (See col 1 line 64, col 5 line 45-48) That Emmet does not teach a mixture of components is irrelevant because Emmet is used to support the amount of carbon black required to obtain a dark black color in a copolymer composition. (See Table 1, OR-15, OR-25)

For applicant's convenience, the fillers and contents taught by the combination of Underwood and Emmet are summarized below:

Microsilica: up to 250 phr (Underwood, col 5 line 24-30)

Carbon black: 80 and 100 parts by weight (Emmett, Table 1, OR-15, OR-25)

Other fillers: disclosed but no specific values are given. (Underwood)

With respect to argument (C), applicant's arguments have been considered but are ***not persuasive***. Contrary to applicant's arguments that Černec does not disclose the presently claimed invention, preparation of a sealing material having less than 60% weight of graphite powder, and 30% weight of mineral fillers including microsilica. (See abstract) These values fall within the presently claimed contents of the invention.

Art Unit: 1763

Furthermore, Černec teaches that the microsilica in combination with the other fillers makes it possible to achieve a good packing density of the particles and confers good sealability of the sealing material. (See p. 4 par 1) This means that the material can be easily processed into a sealing space, that the material has good processability.

Underwood is consulted for the particulars of the microsilica properties, and gives a variety of reasons why this microsilica would be obvious to select as the microsilica of Cernac. Furthermore, Underwood teaches that the microsilica improves flowability and processability; the microsilica also confers high thermal conductivity, which improves rheological properties. (See col 2 line 63-col 3 line 11)

For applicant's convenience, the fillers and contents taught by the combination of Underwood and Emmet are summarized below:

Fillers: Graphite: less than 60% weight (See abstract)

(Based on 100 parts of elastomeric binder, this is up to 500 parts by weight of the graphite powder)

Microsilica: \leq 30% weight of mineral fillers including microsilica. (See abstract)

(Based on 100 parts of elastomeric binder, this up to 250 parts by weight of microsilica.)

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